Hydrogen gas concentration dependent on the structure of fracture zones

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Heterogeneous structure of fracture zones is necessary to understand the character, fluid flow and geophysical properties of the lithosphere. This report provides a characterization of strike-slip fractures and the hydrogen gas concentration of the active fault around the western part of the Atotsugawa fault zone, central Japan.

We have measured the hydrogen gas concentration emitted of the Taie fault. Measurements were made at a newly formed outcrop at Taie-Sugisaki Pass of Hida City, Gifu Prefecture (Kagohara et al.,2009). The most of higher emissions are situated as X shear. The highest hydrogen gas concentration was 83.1 ppm/min. From the result of the survey, hydrogen gas emission from outcrop of the Taie fault is observed the points where high concentrated hydrogen gas emission is detected are depending on the strike-slip fractures.

References K.Kagohara,et al,2009: AJG.